

Yu-Chieh Wen (溫昱傑)

Curriculum Vitae

Institute of Physics, Academia Sinica
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Education

Ph. D. – Institute of Photonics and Optoelectronics, National Taiwan University, Taiwan
(2004-2010)

B. S. – Department of Mechanical Engineering, National Taiwan University, Taiwan
(2000-2004)

Experience

2025.03 – Present,

Associate Research Fellow, Institute of Physics, Academia Sinica, Taiwan

2016.11 – 2025.03,

Assistant Research Fellow, Institute of Physics, Academia Sinica, Taiwan

2012.04 – 2016.10,

Postdoctoral Research Associate, Department of Physics, University of California, Berkeley, CA; Department of Physics, Fudan University, China; Institute of Physics, Academia Sinica, Taiwan (Supervisor: Prof. Yuen-Ron Shen)

2010.11 – 2012.03,

Postdoctoral Research Associate, Institute of Physics, Academia Sinica, Taiwan (Supervisor: Prof. Maw-Kuen Wu)

2004.09 – 2010.10,

Research Assistant, Institute of Photonics and Optoelectronics, National Taiwan University, Taiwan (Supervisor: Prof. Chi-Kuang Sun)

Awards and Honors

Newly-Employed Staff Academic Research Grants, Academia Sinica (2017)

Research Fields:

1. Nonlinear optics
2. Surface physical chemistry

3. Ultrafast time-resolved optical spectroscopy
4. Topological quantum material physics

Invited Talks since 2017:

Conferences

Mar. 2024	24 th East Asian Workshop on Chemical Dynamics, Taipei, Taiwan
Sep. 2023	8 th Asian Spectroscopy Conference, Niigata, Japan
Jan. 2023	12 th Asian Conference on Ultrafast Phenomena, Singapore
Aug. 2020	2020 Summer Workshop on Molecular Spectroscopy in Taiwan, Taipei, Taiwan
May 2020	Nonlinear Optics at Interfaces, Online workshop
Feb. 2020	Annual Meeting of the Physical Society of Taiwan, Pingtung, Taiwan
Sep. 2019	23 th East Asian Workshop on Chemical Dynamics, Adelaide, Australia
Aug. 2018	Workshop to discuss the future of gas phase research, Taipei, Taiwan
Jun. 2018	Bilateral Workshop CR-Academia Sinica in Nanobioscience and Nanotechnology, San Jose, Costa Rica
Jun. 2018	IOP/CAS-IPAS Academic Symposium, Beijing, China
Jul. 2017	International Workshop on Nonlinear Optics at Interfaces in Dalian, Dalian, China

*The list of seminars and colloquia is available on request.

Positions/Services performed in academic organizations or associations since 2017

1. Member of Local Organization Committee for *13th Asian Conference on Ultrafast Phenomena* (2025)
2. The key member of Organization Committee for *The International Workshop on Transport and Optics in Topological Systems* (2024)
3. Member of Program Sub-Committee for *The 16th Pacific Rim Conference on Lasers and Electro-Optics* (2024)

4. Student affair committee chair for Nano Science and Technology Program in Taiwan International Graduate Program, Academia Sinica (2020 – present).

Publications since 2017 (*: corresponding author)

1. S. M. Faizanuddin, C.-H. Chien, Y.-J. Chan, C.-N. Kuo, C. S. Lue, and **Y. C. Wen***, “Heterodyne-Detected Giant Surface Optical Nonlinearity of Transition Metal Dichalcogenide Dirac Semimetal,” [arXiv:2308.09053v2](https://arxiv.org/abs/2308.09053v2).
2. Y.-J. Chan, S. M. Faizanuddin, R. Kalaivanan, S. Raman, H. Lin, U. Kar, A. K. Singh, W.-L. Lee, R. K. Vankayala, M.-N. Ou, and **Y. C. Wen***, “Origin of Nonlinear Photocurrents in Chiral Multifold Semimetal CoSi Unveiled by Terahertz Emission Spectroscopy,” *Phys. Rev. B*, accepted [also see [arXiv:2409.05424](https://arxiv.org/abs/2409.05424) (2024)].
3. C.-L. Liao, S. M. Faizanuddin, J. Haruyama, W.-S. Liao*, and **Y. C. Wen***, “Effects of Chain-Chain Interaction on the Configuration of Short-Chain Alkanethiol Self-Assembled Monolayers on A Metal Surface,” *J. Chem. Phys.*, 160, 214711 (2024).
4. C.-W. Hu, C.-Y. Lu, **Y.-C. Wen**, and H.-W. Chen*, “An Economical Single-Shot Pulse Picker without Nonlinear Effect and Dispersion,” *Rev. Sci. Instrum.*, 95, 013003 (2024).
5. Y. Hsiao, T.-H. Chou, A. Patra, and **Y.-C. Wen***, “Momentum-Dependent Sum-Frequency Vibrational Spectroscopy of Bonded Interface Layer at Charged Water Interfaces”, *Sci. Adv.*, 9, eadg2823 (2023).
6. L. Dalstein, K.-Y. Chiang, and **Y.-C. Wen***, “Surface Potential at Electrolyte/Air Interfaces: A Quantitative Analysis via Sum-Frequency Vibrational Spectroscopy,” *J. Phys. Chem. B*, 127, 4915 (2023).
7. L. Dalstein, J.-R. Huang, and **Y.-C. Wen***, “Wavelength-Scanning Second Harmonic Generation for Determining Absolute Charge Density at Aqueous Interfaces”, *Opt. Lett.*, 45, 3733 (2020).
8. K.-Y. Chiang, L. Dalstein, and **Y.-C. Wen***, “Affinity of Hydrated Protons at Intrinsic Water/Vapor Interface Revealed by Ion-Induced Water Alignment”, *J. Phys. Chem. Lett.*, 11, 696 (2020).
9. L. Dalstein, K.-Y. Chiang, and **Y.-C. Wen***, “Direct Quantification of Water Surface Charge by Phase-Sensitive Second Harmonic Spectroscopy,” *J. Phys. Chem. Lett.*, 10, 5200 (2019).
10. X. Liu, G. Huang, K.-K. Hu, N. Sheng, C. Tian, Y. R. Shen, **Y.-C. Wen**, G. Shi*, and H. Fang, “Sharing of Na⁺ by Three -COO⁻ Groups at Deprotonated Carboxyl-Terminated Self-Assembled Monolayers Charged Aqueous Interface,” *J. Phys. Chem. C*, 122, 9111 (2018).